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### UNITED STATES DEPARTMENT OF AGRICULTURE Bureau of Entomology and Plant Quarantine Washington, D. C.

January 4, 1941.

In the attached statement there are summarized the results of the 1940 trap-scouting to determine the distribution of the Japanese beetle. Also included as part of the record are lists showing comparative trapping records for the current and preceding years in localities now outside the Japanese beetle regulated area.

Moderate extensions of the regulated area are contemplated to include established infestations in New York, Fennsylvania, West Virginia, Maryland and Virginia.

Discoveries of a few beetles each were made in several Florida cities this year, the first bootles that have been captured there since trapping was started in the State.

This year the State of Maryland completed its third season's activities in a Japanese beetle retardation campaign. Two rural infustations in Maryland have been omitted from the regulated zone to permit continued suppressive work there by the State.

Soil treating programs to suppress isolated infestations have been completed in Ohio, North Carolina, Illinois, Michigan, Indiana and Georgia. The most extensive soil treating program undertaken by any State was completed in North Carolina during the past year. All infestations in the State, with the exception of one at Asheville, have received lead arsenate applications. Due to difficult terrain, the localized infestation in Asheville does not land itself to this type of treatment. Infested sections of Asheville will receive inoculations of the milky disease to control the Japanese beetle grubs and extensive trapping will be repeated there in 1941. Shipment of host material from Asheville is already subject to State quarantine regulations paralleling the Federal requirements.

These control measures are considered adequate to eliminate the hazard of interstate spread of the insect from non-quarantined States. Accordingly, no quarantine hearing will be held at this time to consider the extension of the regulated zone or modification of the regulations. The accompanying statement is issued in lieu of the report usually presented at quarantine hearings. It makes available to State plant pest officials and other interested parties the latest information on the distribution of this insect.

LEE A. STRONG,

Chief of Bureau.

Attachments.

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### JAPANESE BEETLE CONTROL OPERATIONS DURING 1940

Trap-scouting to determine the spread of the Japanese beetle in unquarantined States and in non-regulated portions of infested States was carried on during 1940 in 490 localities in 39 States. From the time the first traps were placed in Miami, Florida on April 16 until the last trap route was discontinued in St. Louis, No. on September 30, 83,019 traps were operated, most of them for periods of 30 days each. The trapping personnel at the peak of the season totaled 366 trap inspectors. These comprised 217 temporary Federal inspectors, 13 Federal and State appointees, and 136 workers from the National Youth Administration, Works Frogress Administration and State per diem payrolls.

Trapping was with negative results in 359 cities and towns. The 131 communities in which beetles were trapped, divided as to States, were:

Florida 3, Georgia 5, Illinois 3, Indiana 9, Kentucky 1, Maine 2, Maryland 41, Michigan and Missouri 2 each, New York 5, North Garolina 20, Chio 11,

Pennsylvania 5, South Carolina 3, Virginia 13, and West Virginia 6. Fifty—six of these positive catches were first-records; 75 were recurring infestations carried over from minimal infestations of previous years. Of these infestations, 42 are incipient or negligible and may be ignored for the present year. Forty of the isolated infestations have been treated with lead arsenate. An additional 44 it is contemplated will be included within the regulated territory. Another is already subject to rigid State quarantine. The remaining four will be permitted to remain outside the regulated area under safeguards to permit further suppressive work in connection with the Maryland retardation campaign.

Traps were again operated at Bureau field stations in States not covered by the regular trapping program of the Division of Japanese Beetle Control. In this manner, 1,684 traps were set in 20 States exclusively trapped by Divisions engaged in other work carried on by the Bureau, and in 13 States in which the regular trapping was supplemented by the intra-Bureau program. All traps operated west of the Mississippi River were tended by the staffs of Bureau field stations. This supplementary program disclosed the absence of Japanese beetles at the 147 locations at which traps were set. The only non-quarantined States not included in the Bureau-wide field survey were Montana, Nevada, Oklahoma, and South Dakota.

There were few new developments at the isolated infestations at which large control programs were repeated this year. Uniform reductions were obtained in the sections treated in Atlanta and East Point, Georgia, and Chicago, Ill. There were nominal reductions and some slight increases in the carry-over infestations in Indiana, where 142 acres in seven cities received lead arsenate applications this year. This season's trap captures in St. Louis, No. were 30 beetles, or approximately the same reduced number caught outside the treated areas in each of the two previous years. Treating of an additional 23 acres was necessary to take care of the escaped infestations in St. Louis. Treating in Dansville and Newark, N. Y. was jointly sponsored by the local nurserymen and the municipalities concerned, with State and Federal cooperation. North Carolina's treating program was the most extensive of any carried on this year. Approximately 260 acres had been completed in 16 communities by the middle of Docember, with work

still in progress in two cities where an additional 60 acres were scheduled for treatment. Ohio also repeated their large-scale treating program, with 119 acres covered this fall. Thirty-eight acres in Danville, Va. were treated under State and municipal auspices. All treatments this fall were at the rate of 500 pounds of lead arsenate per acre. As in previous years, the Bureau of Entomology and Flant Quarantine furnished the spray trucks, truck drivers, and a supervisor to cooperate with the State official directly in charge of the treating.

Established, untreated infestations of such size or in such proximity to the regulated area as to require quarantine extension were found in 37 Maryland communities, Auburn, N. Y., Asheville, N. C., Grove City, Meadville and Titusville, Pa., Emporia, Petersburg, Washington and Winchester, Va., and Benwood, McMechen and Loundsville, W. Va. The principal quarantine extension contemplated to include these infestations is in Maryland, where considerable territory will be added on the western border of the present regulated zone. In New York the addition of a few towns in Cayuga County is all that is necessary to add Auburn to the regulated area. Portions of Crawford, Erie, Forest, Mercer, Warren and Venango Counties will be affected by the contemplated revision of the regulated area in Pennsylvania. Moderate extensions of the Virginia area will occur in Rappahannock and Chesterfield Counties, with the city of Winchester and the town of Emporia included as isolated areas. West Virginia extensions will probably include Ohio County and a part of adjoining Marshall County, both in the panhandle district of the State.

An unusual situation exists at Asheville, N. C., where a moderately heavy, yet localized infestation was found. Due to the presence of cultivated fields and considerable wild growth in the section involved, lead arsenate treatment is impracticable. Inasmuch as this section is isolated from other infestations, suppressive work is desirable there to prevent its becoming a source of secondary infestation by natural flight of the adults. Inclusion of the area under Federal quarantine would permit the entry of infested products and would render ineffective any further suppressive work. Consequently, Federal quarantine action is being withheld and a combined program of milky disease inoculation to control the grub and further intensive trapping to catch any escaped adults will be carried on there in 1941. Strict enforcement of a State quarantine paralleling the Federal regulations will guard against the movement of infested soil or plant material from that area.

Surveys of those sections in the regulated area most heavily infested by the insect indicate very limited extensions of the area of heavy flight in southeastern Pennsylvania and in districts surrounding Baltimore, Md.

## JAPANESE BEETLE TRAPPING OUTSIDE PRESENT REGULATED AREA 1930 - 1940

Location	1940 Traps J.B.	1939 Traps	J.B., Tr	1938 aps J.B.	1937 Traps	J.B.	193 Traps	6 J.B.	193 Traps	5 J.B	193 Traps	ц Ј.В.	193 Traps	3 Ј.В.	1932 Traps	J.B.	193 Traps	1 J.B
FLORIDA Jacksonville Miami Tampa	600 5 600 2 600 1	12	-	12 -	792 778 796	=	=	=	=	=	=	=	=	:	400 400 400	:	=	=
GEORGIA Atlanta Augusta Chamblee East Point Gainesville Jonesboro Savannah Toccoa	3109 32 50 17 440 137 200 2 83 - 123 2	400	-	133 122         	1487 392 - - 800 100	6	396 392 - - - 395	1 - 1	-	-	-	-	-	-	400 400 - - - 400	-	24	-
Chicago Cicero East St. Loui Elgin Evanston Oak Park	10000 462 800 - s 600 5 800 - 300 1	_	24   8 16   6	26 330 00 5 00 1 85 - 00 1	9980 400 1234 388 400 800	384 1 3 20	7500 1102 - -	3740 2 - -	3065 1060	39 3	1038 804 - -	6	-	-	-	:	300	:
INDIANA Bluffton East Chicago Elkhart Fort Wayne Hammond Indianapolis Logansport. Muncie New Castle Richmond South Bend Warsaw Whiting	250 - 299 77 1200 52 3000 - 2700 160 313 13 - 200 2 1200 12 194 60 300 4	3280 400 400 400 1600	76 36	000 1 000 2 000 20 000 1 000 1 000 8 	800 400 3500 400 400 400 800 200	18 12 1 1 1 43	399 3500  398 400	5 28 3	2434	577	792	17			- - - - 48		-	
TOWA Ft. Madison		200	- 2	200 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KENTUCKY Lexington Louisville	1200 4	600 1600	13 15	97 1 66 62	391 800	10	400 800	1 2	=	=	=	=	=	=	=	=	-	-
MAINE Augusta Bangor Bar Harbor Bath Brunswick Ellsworth	325 9 95 4  115 -	400 150 175 100	-   1 -   2	000 - 000 - 000 - 000 2 000 1	-	:	253 301 172 175 71 125	:	200 293 120 203 84 72	1	204 204 201 202 120	1	296 388 202 60	7	148 200 - - -	1	-	:
MARYLAND Ashton Aquasco Beverly Beach Boonsboro Boyds Chesapeake Bo Church Creek Clarksburg Clear Spring Damascus Darnestown Dickerson Edgemont Emmitsburg Finksburg Freeland Gaithersburg Great Falls Hancock Hebron Hereford Hughesville Indian Head Kenwood Beach Keymar Laytonsville Leonardtown Lisbon Manchester Mangansville Mardela Sprin Mechanicsvill Middletown Mount Savage	150 41 24 24 24 24 25 14 16 24 100 207 100 207 100 20 25 175 175 945 100 327 170 327 150 26 100 40 225 4 100 23 150 1040 150 1040 150 4900		16 9 - 10 - 8 - 19	 54 	10 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 24 10 10 15 10 10 10 10 10 10 25 20		50 23 10 20		50 24 20 25 10 50		20 	1	- - - - - - - - - - - - - - - - - - -			

### JAPANESE BEETLE TRAPPING 1930 - 1940

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Location MARYLAND	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.	Traps	J.B.
(Cont'd.) Nanticoke North Beach Olney Poolesville Potomac Prince Frede	100 100 10 15	102 214 46 401 72	-	33	-		10	ī -	10	-		-	-	-	-	-		-		-
ic Quantico Reisterstown Ridgeville	k 125 20	2 <sup>11</sup> 2 <sup>41</sup> -	- - -	1 19 47	90 - 24	9	10 25	-	10 25	-	- 40	- - -	- 40 -	-	21 40 10	- 1	108	- 1	- - -	-
Ringgold (Camp Loui Riviera Beac Sandy Spring Seaside Park Shadyside Smithsburg Solomons Solomons Is-	h -	33000 12 -9 202	-	- - - 3 - 68	82 64	-	10 10 15	- - - -	10 10 10 -	51	-	-	-	-	25	-		-	-	-
land Taylorsville Thurmont Union Bridge Union Mills Vienna Westernport	100	163 138 59 4 3	-	- 9 - 19	106	2 -	10 50 10 10 40	2 -	10 43 15 10 50	10 - 2 - 1	50 - - 93	-	11 50 - 144	1	25 10 78 50 - 75	2	186	-	-	-
MICHIGAN Birmingham Dearborn * Letroit Grosse Point	200 400 6000 e 200	252	200 400 5250	6 5 115	780 5313	- 1 82	796 5045	6 67	398 4686	128	- 790	23	- 792	10	1042	- 4	389	- 8	200 100	-
Farms Highland Par Melvindale Pontiac		1	25 400 200 200	5	200 50	2 1	200 398	-	-	-	-	-	-	-	144	- - -	-	-	-	-
MISSOURI Bridgetown- (St. Louis- L bert Field) St. Louis	am- 1 51 12299	30	12230	26	12500.	<del>-</del> 27	12557	<u>-</u>	11562	88	10070	1232	2604	1351	-	-	-	<u>-</u>	-	-
NEW HAMPSHI Woodsville	RE -	-	1	_	12	-	-	-	100	-	-	-	-	-	202	1	-	-	-	-
NEW YORK Albion Auburn Batavia Canandaigua Dansville Dundee Dunkirk East Aurora Fulton Geneva Gowanda Hammondsport Jamestown Lockport Mayville Messena Medina Newark Niagara Fall Olean Oswego Penn Yan Seneca Falls Westfield	200 s - 40 55	37	300 	111115116111151111111111111111111111111	100 288 100 100 40 197 99 200 21 - - 30 150 150 198 - -	1	200 - - 190 - 800 - - 200 790 400 200	13	200 	10012	2104 204 	772	2044 84-60 132- 287-60 39644-60 960-96		198 198 204 192 197 196 204 198 198 198 198 198	1 1 - 1 - 2 2 1 - 1	92 391 396 81 125 192 100 144 	1 2 1 1 1 1 1 1 1	300	
NORTH CAROL Asheville Aulander Burlington Charlotte Durham East Spencer Elizabeth Ci Fayetteville Goldsboro Greensboro	900 300 600 600 200 ty200	19322 34 37 58 985 985 29	200 888 800 200 350 197	1073 -5 36 29 645 46 -3 334	12 - 800 200 196	15 11 -	396 193 788 394 189 197 	13 13 194 1 370	400 200 400 399 73 192 200 200 779	1 5 40 1 - 15	400 383 192 200 200 400	- - - 8 4 - - - 1 13	-	-	395 255 250 396 396 396 202 200 396	2 1 1 5 1	192	- - - - - - - - -		-

334 - - 384 370 779 15 400 \*Daarborn; Michigan - 1930 100 traps - no beetles



# JAPANESE BEETLE TRAPPING 1930 - 1940

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Location Traps J.B.	1939 Traps J.B.	1938 Traps J.B.	1937 Traps J.B.	1936 Traps J.B.	1935 Traps J.B.	1934 Traps J.B.	1933 Traps J.B.	1932 Traps J.B.	1931 Traps J.B.
NORTH CAROLINA (Cont'd.) Hamlet Henderson High Point Kinston Lexington Lexington Lumberton Murfreesboro Oxford Raleigh Rocky Mount Salisbury Sanford Spencer Statesville Tarboro Thomasville Wake Forest Washington Weldon Wilson Winston-Salem1200 366	97 1 800 37 196 11 	100 5 600 34 200 1 158 2 600 20 400 1 96 16 200 1 181 2 94 -	400 3 	396 2 396 2 396 2 399 - 1 400 6 3 28 400 526 3 200 - 2 200 - 2 200 - 2 200 2 2	100 2 371 1 200 - 150 1 400 10 395 6 300 54 100 2 200 54 100 - 35 1 200 - 200 -		51 - 2 175 - 2 196 - 1 199 - 1 100 - 3 275 1 1100 - 1 260 - 1	204 9	300
OHIO Ashtabula Athens Belpre Bucyrus Chillicothe Cincinnati Conneaut Elyria Gallipolis Lancaster Marietta New Concord North Salem Norwalk Sandusky Washington C.H Zanesville Sando 1 299 53 100 1 100 1 299 769 200	400 97 100 124 - 200 184 400 2 200 217 300 48 26 - 100 704 200 - 200 5	397 126 36 9 1200 196 13 197 20 196 19 260 19	212 129 198 - 194 - 297 - 950 1 200 1 400 - 199 12 284 45 - - - - - - - - - - - - - - - - - - -	299 - 	103 - 150 - 171 1 800 - 95 2 - 300 2 200 12 - 125 - 396 1	132 -	216 - - - 132 - 396 - - - - - 196 - - - 132 1 198 -	250	300 -
PENNSYLVANIA Greenville 300 2 Grove City 200 67 Meadville 400 16 Titusville 300 21 Wesleyville 65 1	200 1 100 7 200 6		100 -  198 - 97 - 41 -	195 - 300 - 150 -	  		92 - 92 - 92 -	392 -	
SOUTH CAROLINA Charleston 300 12 Florence 200 8 Greenville 900 12	12 - 800 5	794 2 12 - 765 6	783 2 297 <del>-</del> 750 1	730 11 300 - 794 33	755 - 306 - 799 89	 204 2	225 1 396 1	800 - 201 2	300 4
TENNESSEE Bristol	200 -	172 -	151 -	175 4					
VIRGINIA Ashland Berryville 100 7 Bon Air Bristol Buena-Vista - Charlottesville- Clifton-Forge - Courtland(South- hampton County)20 1 Danville 1299 43	30 3 200	29 - 33 - 196 4 99 - -	60 - 12 3 145 2 100 1 397 68 84 - 10 - 375 -	50 1 10 14 125 1 100 - 400 29 100 1 10 - 400 2	100 7 5 6 - 299 30	102 - 36 - - - 204 60	100 4 25 - 20 - 175 - 308 6 146 - 12 - 300 -	42 -  400 7	
Danville 299 43 E. Highland Pk 6 Emporia 16 So. Emporia 76 18 No. Emporia 222 Front Royal 100 2 Harrisonburg 200 5 Hopewell - 7 Luray 10 1 Lynchburg - 7 New Market 20 - 7 Orange 200 61 Petersburg Pike	400 11 	199 6 130 1 17 3 30 -	32 5 	400 2 30 2 	383 4 60 8 	204 - 60 7 - 48 - 228 - 180 - 40 - 192 - 192 - 216 -	58 3 	61	
Pulaski Rappahannock	18 1		90 31	150 29	30 4 143 14		200 -		

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#### JAPANESE BEETLE TRAPPING 1930 - 1940

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Location	1940 Traps	O J.B.	19 Trapi	39 5 J.B.	193 Traps	88 5 J.B.	193 Traps	7 <sub>Ј.В.</sub>	1930 Traps	б Ј.В.	193 Traps	5 J.B.	193 <sup>1</sup> Traps	J.B.	1933 Traps	J.B.	193 Traps	<sup>2</sup> Ј.В.	193 Traps	J.B.
VIRGINIA (Cont'd Roanoke Route #2 (Frederick South Hill Staunton Strasburg Timbervill Unionville Warsaw Washington Waynesboro Winchester Woodstock	sburg)- 30 - 25 e 10	978	20 20 20 397	1	2 198 10 9 15 - 383 30	2 7 7	757 -200 200 -10 -300	38	800 15 200 - - 9 100 301 25	16	406 - 192 - - - 96 300	28	204 - 192 36 - - 276	9	396 	7	400 - 135 - - - 186	23		
WEST VIRG Benwood Berkeley S Buckhannon Elkins Huntington McMechen Moundsvill Paden City Phillipi Princeton St. Mary's Sistersvil Weston	24 prings- - - 27 198 25 - 25	35 - - 5 30 2 - 1	70 70 70 200 25 70	2 2 1	30 593 40 10 56	-	90 125 796 200 60 100		400 	2 - 4	35 400 200 150	1 1 - 3	36 - - - 168 -	1	132 156 198 132 132 132		-		-	

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